

REMARKS

This Amendment is submitted in response to the final Office Action mailed on December 10, 2008. No fee is due in connection with this Amendment. The Director is authorized to charge any fees which may be required, or to credit any overpayment to Deposit Account No. 02-1818. If such a withdrawal is made, please indicate the Attorney Docket No. 112857-711 on the account statement.

Claims 14-31 are pending in this application. Claims 1-13 were previously canceled without prejudice or disclaimer. In the Office Action, the drawings are objected to. Claims 14-17 and 25-26 are rejected under 35 U.S.C. §102. Claims 18-24 and 27-31 are rejected under 35 U.S.C. §103. In response, Claims 14, 25-26 and 28 have been amended. These amendments do not add new matter. At least in view of the amendments and/or for the reasons set forth below, Applicants respectfully submit that the rejections should be withdrawn.

In the Office Action, the drawings are objected to under 37 C.F.R. 1.83(a). See, Office Action, page 2, line 6. The Patent Office asserts that the “integrated molded article” recited in Claim 28 is not shown in the current drawings and must be added to the drawings or canceled from the claim. See, Office Action, page 2, lines 6-9. In response, Applicants have amended Claim 28 to recite that the optical sheet including the lens elements “is a single-layer element formed by thermal transfer of a desired shape to the sheet.” This Amendment does not add new matter. The amendment is supported in the Specification at, for example, page 7, paragraph 141, paragraph 144, lines 1-5 and 9-11; page 8, paragraph 145, lines 1-7. A single-layer optical sheet is shown in Figures 3-4. See, Specification, Figs. 3-4.

Accordingly, Applicants respectfully request that the objection to the drawings be withdrawn.

In the Office Action, Claims 14-17 and 25-26 are rejected under 35 U.S.C. §102(b) as anticipated by U.S. Patent Application No. 2004/0109663 A1 to Olczak (“*Olczak*”). In response, Applicants have amended independent Claims 14 and 25-26. In view of the amendments and/or for at least the reasons set forth below, Applicants respectfully submit that *Olczak* fails to disclose or suggest each and every element of the present claims.

Currently amended independent Claims 14 and 25-26 recite, in part, an optical sheet comprising a plurality of cylindrical lens elements provided successively in a row on one of principal faces of said optical sheet, wherein if a Z axis is taken in parallel to a normal line

direction to said optical sheet and an X axis is taken in a direction of the row of said lens elements, a cross sectional shape in the XZ plane of each of said lens elements has a hyperboloidal or paraboloidal structure in which an entire surface of each of said lens elements satisfies the following expression: $Z = X^2/(R + \sqrt{R^2 - (1 + K)X^2}) + AX^4 + BX^5 + CX^6 + \dots$, where R is the radius of curvature of a distal end vertex, K is a conic constant, and A, B, C, ... are aspheric coefficients. These amendments do not add new matter. The amendments are supported in the Specification at, for example, page 2, paragraph 16, lines 10-14; page 5, paragraph 109, lines 1-7 and 10-15; paragraph 112, lines 1-7; page 9, paragraph 165, lines 1-8; page 10, paragraph 175, lines 1-8; and Figs. 9, 11, 13, 15, 17, 19 and 21. In contrast, *Olczak* fails to disclose or suggest every element of the present claims.

For example, *Olczak* fails to disclose or suggest a plurality of cylindrical lens elements wherein an entire surface of each of said lens elements satisfies the following expression: $Z = X^2/(R + \sqrt{R^2 - (1 + K)X^2}) + AX^4 + BX^5 + CX^6 + \dots$, where R is the radius of curvature of a distal end vertex, K is a conic constant, and A, B, C, ... are aspheric coefficients as recited, in part, by currently amended independent Claims 14 and 25-26. The Patent Office asserts that *Olczak* discloses an optical sheet comprising cylindrical lens elements having an XZ cross-sectional shape that satisfies the claimed expression. See, Office Action, page 3, lines 13-20. However, the portions of *Olczak* relied on by the Patent Office merely disclose prisms in which a portion of the face of the prism is curved. See, *Olczak*, page 2, paragraph 22, lines 1-4. *Olczak* specifically states that “[t]he curvature can be described as a segment of a parabola.” See, *Olczak*, page 2, paragraph 22, lines 3-4. As such, the entire surface of the lens sheet is not a parabola or curved surface. This is clearly illustrated in Figure 6, which shows that the face of the prism includes both the curved sidewall portion 132 and a linear sidewall portion 124. See, *Olczak*, page 2, paragraph 24, lines 1-7; Fig. 6. Therefore, *Olczak* is entirely directed to a prism sheet with mere portions or segments that are curved, rather than an entirely curved surface which satisfies the claimed expression.

The Patent Office asserts that Figures 2-3 show that the entire surface of *Olczak*'s lens elements is paraboloidal and satisfies the claimed expression. See, Office Action, page 12, lines 6-11. However, Figures 2-3 are somewhat blurry and do not clearly show the geometry of the sidewalls. See, *Olczak*, Figures 2-3. The figures merely show a generally curved surface and do not clearly illustrate that the entire surface of the lens elements is curved. See, *Olczak*, Figures

2-3. In fact, the portions of *Olczak* relied on by the Patent Office describe each prism on its lens sheet as having a “peak angle” α . See, *Olczak*, page 2, paragraph 21, lines 2-4; Figs. 3-4; Claim 2. In Figure 3, the peak angle α is shown as merely an arrow drawn between two sidewall portions on opposite sides of the prism. See, *Olczak*, Fig. 3. An angle is formed by two lines which meet at a common point. See, American Heritage Dictionary, 4th Ed. (2003), <http://www.thefreedictionary.com/Angle>. This suggests that the two sidewall portions near the peak of the prism are linear rather than curved. See, *Olczak*, Fig. 6. Therefore, Applicants respectfully submit that *Olczak* fails to disclose or suggest a plurality of cylindrical lens elements wherein an entire surface of each of said lens elements satisfies the claimed expression.

Moreover, *Olczak* fails to disclose a plurality of cylindrical lens elements wherein each of said lens elements has a hyperboloidal or paraboloidal structure. The Patent Office alleges that the cross sectional shape of each lens element of *Olczak* is entirely paraboloidal. See, Office Action, page 12, lines 6-9. However, *Olczak* is entirely directed to a lens sheet with a prismatic structure. See, *Olczak*, Abstract, lines 6-9; page 1, paragraph 1, lines 1-3; paragraph 6, lines 7-9; paragraph 20, lines 12-14; Figs. 2-4. Although the prismatic structure has a modified geometry which includes a curved sidewall, *Olczak* consistently refers to the cross sectional shape of the lens element as a “prism.” See, *Olczak*, Abstract, lines 6-7 (“[a] cross section of a prism as the structural shape has a curved sidewall or facet”); page 1, paragraph 1, lines 1-3. The prism may include a curved sidewall portion on its faces, but the cross sectional shape of the lens elements is still prismatic. See, *Olczak*, page 1, paragraphs 9-10 (describing Figures 2-3 as showing “a cross section of a prism having a curved sidewall or facet”). In fact, *Olczak* consistently refers to the lens elements as “prisms” that merely include a facet or segment of a parabola. See, *Olczak*, page 2, paragraph 21, lines 2-5; paragraph 22, lines 1-4; paragraph 24, lines 3-7; Figs. 2-4. Nowhere does *Olczak* disclose or suggest that the lens elements have a hyperboloidal or paraboloidal structure. As such, *Olczak* fails to disclose a plurality of cylindrical lens elements wherein each of said lens elements has a hyperboloidal or paraboloidal structure in accordance with the present claims.

Furthermore, *Olczak* fails to disclose or suggest a plurality of lens elements wherein if a Z axis is taken in parallel to a normal line direction to said optical sheet and an X axis is taken in a direction of the row of said lens elements, an entire surface of each of said lens elements satisfies the following expression:

$$Z = X^2/(R + \sqrt{(R^2 - (1 + K)X^2)}) + AX^4 + BX^5 + CX^6 + \dots$$

where R is the radius of curvature of a distal end vertex, K is a conic constant, and A, B, C, ... are aspheric coefficients as recited, in part, by the present claims. The Patent Office appears to assert that the "z" element in the expression disclosed in *Olczak* is equivalent to the "Z" element in the claimed expression. However, *Olczak* expressly states that the "z" in its equation "is the perpendicular deviation. . . of the sidewall or facet. . . from a straight reference line 128." See, *Olczak*, page 2, paragraph 23, lines 1-3. Figure 6 shows that reference line 128 is inclined with respect to a normal line on its lens sheet. See, *Olczak*, Fig. 6. In contrast, the "Z" element in the claimed expression represents an axis taken in parallel to a normal line direction to said optical sheet. Therefore, the "z" element in *Olczak*'s polynomial expression is not equivalent to the "Z" in the claimed expression. Thus, *Olczak* fails to disclose or suggest a plurality of cylindrical lens elements wherein if a Z axis is taken in parallel to a normal line direction to said optical sheet and an X axis is taken in a direction of the row of said cylindrical lens elements an entire surface of each of said lens elements satisfies the claimed expression as required, in part, by independent Claims 14 and 25-26 and Claims 15-17 that depend therefrom.

Accordingly, Applicants respectfully request that the rejection of Claims 14-17 and 25-26 under 35 U.S.C. §102(b) to *Olczak* be withdrawn.

In the Office Action, Claims 18-24 and 27-31 are rejected under 35 U.S.C. §103(a) as being unpatentable over *Olczak* in view of U.S. Patent No. 6,332,691 B2 to Oda et al. ("*Oda*"). As discussed previously, *Olczak* fails to disclose or suggest a plurality of cylindrical lens elements wherein if a Z axis is taken in parallel to a normal line direction to said optical sheet and an X axis is taken in a direction of the row of said cylindrical lens elements, a cross sectional shape in the XZ plane of each of said cylindrical lens elements satisfies the following expression: $Z = X^2/(R + \sqrt{(R^2 - (1 + K)X^2)}) + AX^4 + BX^5 + CX^6 + \dots$, where R is the radius of curvature of a distal end vertex, K is a conic constant, and A, B, C, ... are aspheric coefficients as required, in part, by independent Claim 14 from which Claims 18-24 depend. The Patent Office relies on *Oda* merely for the disclosure of forming convex portions on the face of the optical sheet opposite the face on which the cylindrical lens elements are provided. See, Office Action, page 5, lines 7-23; page 6, lines 1-2. Thus, Applicants respectfully submit that *Oda* fails to remedy the deficiencies of *Olczak*.

Accordingly, Applicants respectfully request that the rejection of Claims 18-24 and 27-31 under 35 U.S.C. §103(a) to *Olczak* and *Oda* be reconsidered and withdrawn.

For the foregoing reasons, Applicants respectfully submit that the present application is in condition for allowance and earnestly solicit reconsideration of same.

Respectfully submitted,

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